

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 11102909
PUBLICATION DATE : 13-04-99

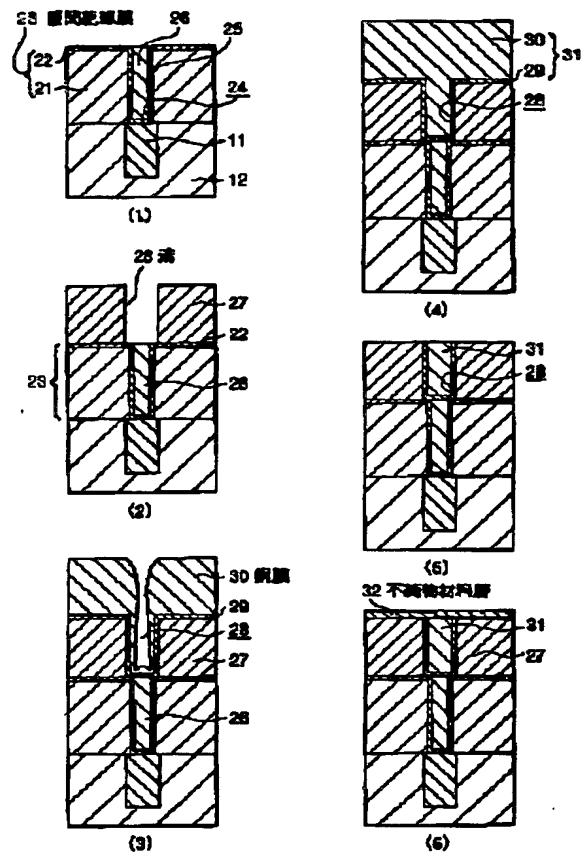
APPLICATION DATE : 29-09-97
APPLICATION NUMBER : 09263040

APPLICANT : SONY CORP;

INVENTOR : TAGUCHI MITSURU;

INT.CL. : H01L 21/3205 H01L 21/768

TITLE : FORMING METHOD OF COPPER
ALLOY WIRING



ABSTRACT : PROBLEM TO BE SOLVED: To improve reliability of a copper alloy wiring, by forming an alloy containing impurities capable of improving electromigration resistance, without largely decreasing the resistance in a copper wiring formed in a trench.

SOLUTION: A copper film 30 is fluidized and buried in a recessed part (e.g. a trench 28, a connecting hole, etc.), formed in an interlayer insulating film 23 by, e.g. a reflow method heating copper, a high pressure reflow method pressurizing copper, etc. After an impurity material layer 32 is formed by depositing, e.g. zirconium as impurity material on the copper film 30, zirconium of the impurity material layer 32 is diffused in the copper film 30 by heat treatment.

COPYRIGHT: (C)1999,JPO

BEST AVAILABLE COPY